

< TEST

Chemistry Physics English

Biology Chemistry Physics English

- 1) Auditory relay center is located in:
A) Hypothalamus C) Hindbrain
B) Forebrain D) Midbrain
☐ A ☐ B ☐ C ☐ D
- 2) Following are the names of same neuron, EXCEPT:
A) Relay neuron C) Associative neuron
B) Intermediate neuron D) Somatic neuron
☐ A ☐ B ☐ C ☐ D
- 3) _____ is responsible for the poorly understood:
A) Cerebrum C) Thalamus
B) Cerebellum D) Hypothalamus
☐ A ☐ B ☐ C ☐ D
- 4) The number of spinal nerves in humans is:
A) 12 C) 31
B) 24 D) 62
☐ A ☐ B ☐ C ☐ D
- 5) _____ have long axon that runs from the CNS to the effectors:
A) Motor neurons C) Relay neurons
B) Sensory neurons D) Associative neurons
☐ A ☐ B ☐ C ☐ D
- 6) Primary sensory areas are located in:
A) Cerebral cortex C) Cerebellum
B) Cerebral medulla D) Medulla oblongata
☐ A ☐ B ☐ C ☐ D
- 7) Which one of the following conditions best describes active membrane potential?
A) $\frac{+++++}{-----}$ Outside
Inside Neuron
B) $\frac{+++++}{+++++}$ Outside
Inside Neuron
C) $\frac{+-+-+}{+-+-+}$ Outside
Inside Neuron

C) $\frac{+ - + - + - + - + - +}{\text{Inside Neuron}}$ Outside

D) $\frac{- - - - - - - - - - -}{\text{Inside Neuron}}$ Outside

- ☐ A ☐ B ☐ C ☐ D

8) _____ extends through several brain regions:

- A) Amygdala C) Limbic system
B) Hypothalamus D) Hippocampus

- ☐ A ☐ B ☐ C ☐ D

9) The part of nervous system that receives and processes information and then initiates actions is called:

- A) Peripheral nervous system
B) Central nervous system
C) Somatic nervous system
D) Autonomic nervous system

- ☐ A ☐ B ☐ C ☐ D

10) Following are the receptors which respond to the mechanical conditions of the internal organs, EXCEPT:

- A) Receptors of the stomach wall
B) Pacinian corpuscles situated deep in the body
C) Stretch receptors in the carotid and aortic arteries
D) Nerve endings in the branchial vessels of fishes

- ☐ A ☐ B ☐ C ☐ D

11) _____ carries sensory information to the limbic system and cerebrum:

- A) Thalamus C) Hypothalamus
B) Pons D) Medulla

- ☐ A ☐ B ☐ C ☐ D

12) Vertebral column accords protection to:

- A) Forebrain C) Hindbrain
B) Midbrain D) Spinal cord

- ☐ A ☐ B ☐ C ☐ D

13) In neurons the sodium-potassium pump actively transports:

- A) Cl^- in and Na^+ out of the cell
B) Ca^{2+} in and K^+ out of the cell
C) Na^+ in and Cl^- out of the cell
D) Na^+ out and K^+ into the cell

- ☐ A ☐ B ☐ C ☐ D

14) The major coordinating center in the body for regulation of hunger, the menstrual cycle, water balance, the sleep-wake cycle is:

- A) Hippocampus C) Hypothalamus
B) Thalamus D) Pons

- ☐ A ☐ B ☐ C ☐ D

15) The major part of brain that acts as a relay center is:

- A) Forebrain C) Hindbrain
B) Midbrain D) Cerebrum

☐ A ☐ B ☐ C ☐ D

16) Nissl's granules are groups of ribosomes associated with RER of:

- A) Nerve cells C) Associative neurons
B) Motor neurons D) Sensory neurons

☐ A ☐ B ☐ C ☐ D

17) The fluid protection to CNS is provided by:

- A) Pleural fluid C) Cerebrospinal fluid
B) Pericardial fluid D) Amniotic fluid

☐ A ☐ B ☐ C ☐ D

18) In the formation of long term memory important role is played by:

- A) Thalamus C) Pons
B) Hippocampus D) Medulla

☐ A ☐ B ☐ C ☐ D

19) The normal speed of nerve impulse in humans is _____ meters per second but maximum speed is _____ meters per second:

- A) 100, 110 C) 120, 100
B) 100, 120 D) 110, 120

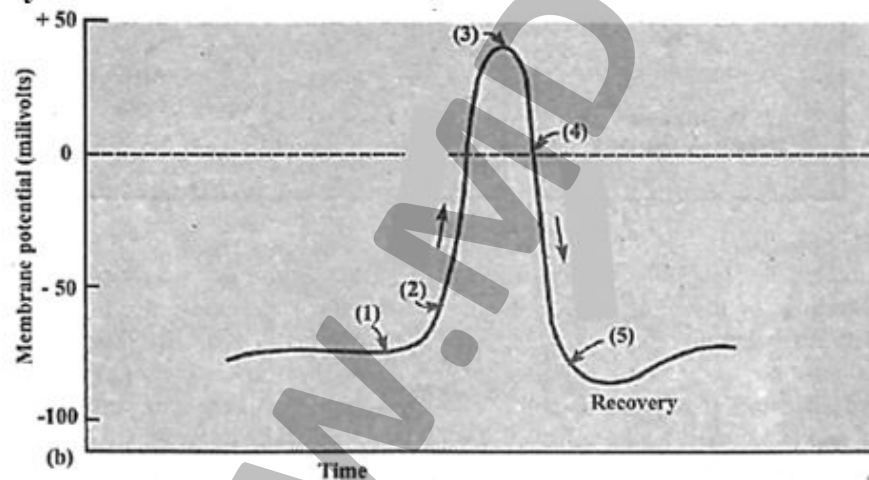
☐ A ☐ B ☐ C ☐ D

20) Which one of the following parts of brain is included in forebrain?

- A) Amygdala C) Pons
B) Medulla D) Cerebellum

☐ A ☐ B ☐ C ☐ D

21) In following figure polarized state have been labelled by:



- A) 1 C) 3
B) 2 D) 4

☐ A ☐ B ☐ C ☐ D

22) Ventral root of spinal cord contains:

- A) Axon of sensory neurons
B) Dendron of sensory neurons
C) Axon of motor neurons
D) Dendrites of motor neurons

☐ A ☐ B ☐ C ☐ D

- 23) Receptors of smell are classified as:**
A) Chemoreceptors C) Photoreceptors
B) Mechanoreceptors D) Nociceptors
- ☐ A ☐ B ☐ C ☐ D
- 24) The center for great many reflexes is:**
A) Pons C) Spinal cord
B) Medulla D) Midbrain
- ☐ A ☐ B ☐ C ☐ D
- 25) Meissner's and Pacinian corpuscles resemble in having:**
A) Spiral and twisted nerve endings
B) Nerve endings in papillae
C) Encapsulated nerve endings
D) Deeply located nerve endings
- ☐ A ☐ B ☐ C ☐ D
- 26) "Rest and rumination" is controlled by:**
A) Central nervous system
B) Somatic nervous system
C) Parasympathetic system
D) Sympathetic system
- ☐ A ☐ B ☐ C ☐ D
- 27) Voluntary rate and pattern of breathing is controlled by:**
A) Cerebrum C) Medulla
B) Cerebellum D) Pons
- ☐ A ☐ B ☐ C ☐ D
- 28) Body position is maintained by:**
A) Medulla C) Cerebellum
B) Pons D) Cerebrum
- ☐ A ☐ B ☐ C ☐ D
- 29) Somatic nervous system is made by:**
A) Motor neurons C) Relay neurons
B) Sensory neurons D) Intermediate neurons
- ☐ A ☐ B ☐ C ☐ D
- 30) Vagus nerve is part of:**
A) Sympathetic nervous system
B) Parasympathetic nervous system
C) Somatic nervous system
D) Autonomic nervous system
- ☐ A ☐ B ☐ C ☐ D
- 31) Promotion of digestion is a:**
A) Sympathetic activity C) Somatic activity
B) Parasympathetic activity D) Voluntary activity
- ☐ A ☐ B ☐ C ☐ D
- 32) The net difference of charges between the inner and the outer surface of a non-conducting neuron is called:**
A) Resting membrane potential
B) Membrane potential
C) Electrical potential
D) Active membrane potential

- ☐ A ☐ B ☐ C ☐ D

33) There is no _____ between two neurons:

- A) Cytoplasmic connection C) Nervous connection
B) Physical gap D) Functional connection

- ☐ A ☐ B ☐ C ☐ D

34) Synaptic knob is made by:

- A) Axon ending C) Cell body
B) Dendrite ending D) Tip of dendron

- ☐ A ☐ B ☐ C ☐ D

35) Receptors that respond to pressure are called:

- A) Chemoreceptor C) Photoreceptor
B) Mechanoreceptor D) Nociceptor

- ☐ A ☐ B ☐ C ☐ D

36) Depolarization occurs due to:

- A) Influx of K^+ C) Efflux of K^+
B) Influx of Na^+ D) Efflux of Na^+

- ☐ A ☐ B ☐ C ☐ D

37) The simple reflex circuit includes each of the _____ elements of a neural pathway:

- A) 3 C) 5
B) 4 D) 6

- ☐ A ☐ B ☐ C ☐ D

38) Nerve cells get insulation by:

- A) Neurons C) Myelin
B) Muscle cells D) Glial cells

- ☐ A ☐ B ☐ C ☐ D

39) Free nerve endings that respond to cold and warmth are called:

- A) Nociceptors C) Mechanoreceptors
B) Thermoreceptors D) Photoreceptors

- ☐ A ☐ B ☐ C ☐ D

40) Time taken by a nerve cell from depolarization to recovery state is:

- A) 1 – 2 milliseconds C) 2 – 3 milliseconds
B) 1 – 3 milliseconds D) 3 – 4 milliseconds

- ☐ A ☐ B ☐ C ☐ D

41) The receptors that detect the amount of oxygen in blood are:

- A) Chemoreceptors C) Nociceptors
B) Mechanoreceptors D) Thermoreceptors

- ☐ A ☐ B ☐ C ☐ D

42) Following are different modalities of sensation, EXCEPT:

- A) Jerk C) Touch
B) Pain D) Sight

- ☐ A ☐ B ☐ C ☐ D

43) _____ act/s as a speed breaker for nerve

impulse:

- A) Nodes of Ranvier
- B) Synapses

- C) Myelin sheath
- D) Schwann cells

☐ A ☐ B ☐ C ☐ D

44) When an impulse reaches a _____, synaptic vesicles within fuse with presynaptic membrane:

- A) Synaptic space
- B) Synaptic gap

- C) Synaptic cleft
- D) Synaptic knob

☐ A ☐ B ☐ C ☐ D

45) Cell membrane of nerve cell is slightly permeable to:

- A) K ions
- B) Na ions

- C) All ions
- D) Organic ions

☐ A ☐ B ☐ C ☐ D

46) Sodium ions are _____ higher in concentration outside than inside the membrane surface:

- A) Fivefold
- B) Thirtyfold

- C) Twentyfold
- D) Tenfold

☐ A ☐ B ☐ C ☐ D

47) On the surface of nerve cell _____ are negligible:

- A) K ions
- B) Na ions

- C) Organic ions
- D) Inorganic ions

☐ A ☐ B ☐ C ☐ D

48) What makes the inside of cell membrane of a resting neuron more negative?

- A) K ions
- B) Na ions

- C) Organic ions
- D) Inorganic ions

☐ A ☐ B ☐ C ☐ D

49) Changes occur along the length of neuron till the impulse reaches:

- A) Dendrites
- B) Synapse

- C) Cell body
- D) Nodes

☐ A ☐ B ☐ C ☐ D

50) In a nerve cell, there are _____ main types of cytoplasmic process or fibres:

- A) Two
- B) Three

- C) Four
- D) Five

☐ A ☐ B ☐ C ☐ D

PREVIOUS

FINISH TEST

NEXT

< TEST

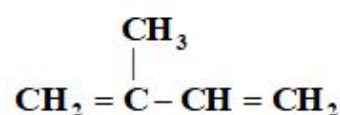
Biology **Chemistry** Physics English

51) Which is a correct statement about the intermediate complex, $[\text{C}_6\text{H}_6\text{NO}_2]^+$ formed during the mononitration of benzene?

- A) It is planar
- B) It contains achiral center
- C) It can exist in either a cis or a trans form
- D) It contains only one tetrahedrally-bonded carbon atom

☐ A ☐ B ☐ C ☐ D

52) The correct IUPAC name of the given structure is:



- A) 2-Methyl-1,3-butadiene
- B) 3-Methyl-1,2-butadiene
- C) 4-Methyl-1,3-butadiene
- D) 1-Methyl-1,3-butadiene

☐ A ☐ B ☐ C ☐ D

53) The reactivity of halogens with alkanes falls in the order of:

- A) $\text{I}_2 < \text{F}_2 < \text{Cl}_2 < \text{Br}_2$
- B) $\text{I}_2 < \text{Cl}_2 < \text{F}_2 < \text{Br}_2$
- C) $\text{F}_2 < \text{Cl}_2 < \text{Br}_2 < \text{I}_2$
- D) $\text{I}_2 < \text{Br}_2 < \text{Cl}_2 < \text{F}_2$

☐ A ☐ B ☐ C ☐ D

54) Consider the following statements:

- I. Markownikov's rule is sometimes phrased "the richer gets richer"
- II. Substituents in IUPAC system are listed in alphabetical order
- III. The main molecular forces present in alkenes are Van der Waal's forces
- IV. Alkenes are prepared in the laboratory by dehydration of alcohols

Which of the above statements is/are correct?

- A) I only
- B) II only
- C) III and IV
- D) I, II, III and IV

☐ A ☐ B ☐ C ☐ D

55) Catalytic hydrogenation of alkenes is used:

- A) For the manufacture of vegetable ghee from vegetable oil in the industry only
- B) As a synthetic as well as analytical tool in the

- B) As a synthetic as well as analytical tool in the laboratory only
 C) Both 'A' and 'B'
 D) Neither 'A' nor 'B'

☐ A ☐ B ☐ C ☐ D

56) Which one of the following reactions shows free radical substitution reaction?

- A) Nitration of benzene in the presence of conc. H_2SO_4 at $50 - 55^\circ\text{C}$
 B) Chlorination of benzene in the presence of FeCl_3
 C) Hydrogenation of benzene in the presence of Ni at 200°C
 D) Chlorination of toluene in the presence of sunlight

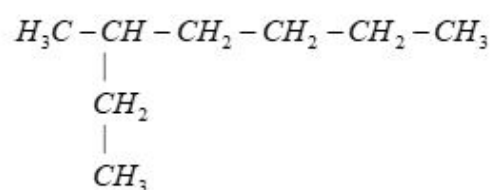
☐ A ☐ B ☐ C ☐ D

57) Benzene does not undergo:

- A) Polymerization process only
 B) Elimination reaction only
 C) Both 'A' and 'B'
 D) Neither 'A' nor 'B'

☐ A ☐ B ☐ C ☐ D

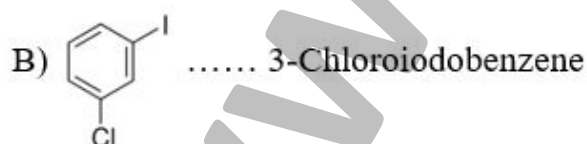
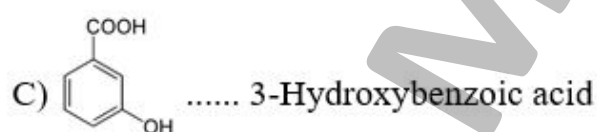
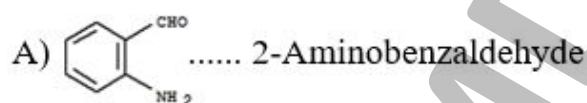
58) Which of the following is correct name of the given alkane according to IUPAC?



- A) 3-Methylheptane
 B) 2-Ethylhexane
 C) 2-Methylheptane
 D) 2-Ethylheptane

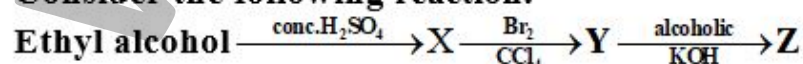
☐ A ☐ B ☐ C ☐ D

59) Which of the following is not correct name according to IUPAC system of the given structures?



☐ A ☐ B ☐ C ☐ D

60) Consider the following reaction:



Which of the following is correct sequence for the product shown as: X, Y, Z?

- A) Ethene, 1,2-Dibromoethane, Ethyne
 B) Ethane, 1,2-Dibromoethene, Ethyne
 C) Ethyne, 1,2-Dibromoethene, Ethane
 D) Ethyne, ethane, 1,2-Dibromoethane

☐ A ☐ B ☐ C ☐ D

61) Bromine reacts with ethene to form 1,2-Dibromoethane:

What is the correct description of the organic intermediate in this reaction?

- A) It has a negative charge C) It is a nucleophile
B) It is a free radical D) It is an electrophile

☐ A ☐ B ☐ C ☐ D

62) Identify the correct statement for the reactions of benzene:

- A) Reduction of benzene with H_2 gas in the presence of Ni at $200^\circ C$ act as a catalyst to form cyclohexane
B) Bromination of benzene in the presence of Sunlight to form 1,2,3,4,5,6-Hexabromocyclohexane
C) Both A and B
D) Neither A nor B

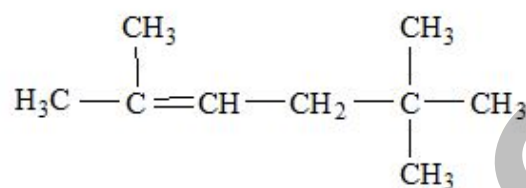
☐ A ☐ B ☐ C ☐ D

63) When purely alcoholic solution of sodium/potassium hydroxide and halogenoalkanes are treated, an alkene is formed. What we call this reaction?

- A) β -Elimination
B) Dehydration
C) Debromination
D) Reduction of benzene

☐ A ☐ B ☐ C ☐ D

64) Consider the following structural formula:



The correct name of the above structure according to IUPAC is:

- A) 2,5,5-Trimethyl-2-hexene
B) 2,2,5-Trimethyl-4-hexene
C) 2,5,2-Trimethyl-5-hexene
D) 2,5,5-Trimethyl-5-hexene

☐ A ☐ B ☐ C ☐ D

65) Alkanes are known as paraffins, which means that they are least reactive.

Which of the following is not cause of their least reactivity?

- A) In their sigma bond the electrons are very tightly held between the nuclei
B) Their electronegativity difference between C and H in alkane is less than 0.5
C) They can act as electrophiles
D) They have non-polarity of bonds

☐ A ☐ B ☐ C ☐ D

66) Which of the following reactions will yield 2-Bromopropane?

- A) $\text{CH}_3 - \text{C} \equiv \text{CH} + 2\text{HBr}$
 B) $\text{CH}_3 - \text{C} \equiv \text{CBr} + \text{HBr}$
 C) $\text{CH} \equiv \text{CH} + 2\text{HBr}$
 D) $\text{CH}_3 - \text{CH} = \text{CH}_2 + \text{HBr}$

☐ A ☐ B ☐ C ☐ D

67) During nitration of benzene, the active nitrating agent is:

- A) N_2O C) NO_2
B) NO_2^+ D) HNO_3

☐ A ☐ B ☐ C ☐ D

68) Which of the following is more reacting substance?

- A) Ethane
B) Ethene
C) Methane
D) Acetylene

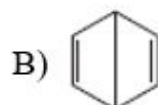
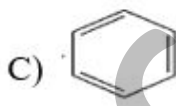
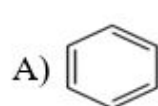
☐ A ☐ B ☐ C ☐ D

69) O
 $\parallel$
The introduction of (H - C⁺) group in benzene is called:

- A) Alkylation
B) Formylation
C) Acetylation
D) Carbonyl reduction

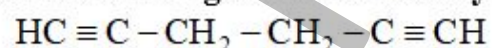
☐ A ☐ B ☐ C ☐ D

70) Which of the following is resonance hybrid structure of benzene?



☐ A ☐ B ☐ C ☒ D

71) Consider the following structure of alkyne:



The correct name of the given structure of alkyne according to IUPAC is:

- A) 1,5-Hexadiyne C) 1,5-Hexadiyne
B) 1,5-Hexadiyne D) 1,5-Hexadiyne

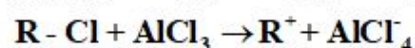
☐ A ☐ B ☒ C ☐ D

72) Benzene is an extra ordinary stable molecule. This stability is due the extensive delocalization of electron cloud. Which of the following methods/techniques does not explain the stability of benzene:

- A) Resonance method
B) Atomic orbital treatment of benzene
C) Crystal field theory
D) Resonance energy

☐ A ☐ B ☐ C ☐ D

73) AlCl_3 catalyzes certain reactions by forming carbocation (carbonium ion) with chloroalkane as shown in the following equation:



This can occur because:

- A) $AlCl_3$ is a covalent molecule
- B) $AlCl_3$ exist in the dimeric form (Al_2Cl_6)
- C) Al-atom in $AlCl_3$ has an incomplete octet of electrons
- D) Cl-atom in R-Cl has a vacant p-orbital

☐ A ☐ B ☐ C ☐ D

74) Which one of the following is a propagation step in the reaction between methane and chlorine?

- A) $Cl_2 \rightarrow 2Cl^\bullet$
- B) $CH_3^\bullet + HCl \rightarrow CH_3Cl + H^\bullet$
- C) $CH_3^\bullet + Cl_2 \rightarrow CH_3Cl + Cl^\bullet$
- D) $CH_2Cl^\bullet + HCl \rightarrow CH_3Cl + Cl^\bullet$

☐ A ☐ B ☐ C ☐ D

75) A hydrocarbon, which is liquid at room temperature and decolorizes bromine in the presence of CCl_4 (solvent). What could be the molecular formula of the compound?

- A) C_2H_2
- B) C_2H_4
- C) C_7H_{16}
- D) $C_{10}H_{20}$

☐ A ☐ B ☐ C ☐ D

76) Which of the following reactions is not an electrophilic addition reaction?

- A) $CH_2 = CH_2 + HI \longrightarrow CH_3CH_2I$
- B) $CH_3CH = CH_2 + Br_2 \longrightarrow CH_3CHBrCH_2Br$
- C) $CH_3CH = CH_2 + H_2O \xrightarrow{\text{conc. } H_2SO_4} CH_3CH(OH)CH_3$
- D) $CH_3COCH_3 + HCN \longrightarrow CH_3C(OH)(CN)CH_3$

☐ A ☐ B ☐ C ☐ D

77) The major product obtained when hypochlorous acid is treated with 2-Methyl-1-butene is:

- A) 2-Chloro-1-hydroxy-2-methyl butane
- B) 1-Chloro-2-methyl-2-butanol
- C) 1-Chloro-3-hydroxy-2-methyl butane
- D) 3-Chloro-2-hydroxy-2-methyl butane

☐ A ☐ B ☐ C ☐ D

78) Both methane and ethane can be prepared in one step by the reaction of:

- A) C_2H_4
- B) CH_3CH_2OH
- C) CH_3Br
- D) CH_3OH

☐ A ☐ B ☐ C ☐ D

79) Consider the following reactions of ethene:

I. Halohydrogenation of ethene

II. Hydration of ethene

III. Halogenation of ethene

IV. Hydrogenation of ethene

Which of the reaction is feasible?

- A) I only
- B) II only
- C) II and III only
- D) I, II, III and IV

☐ A ☐ B ☐ C ☐ D

80) Addition of halogen to alkene is an electrophilic addition reaction. Number of steps involved in the mechanism of reaction is/are:

- A) 2
B) 3
C) 1
D) 4

☐ A ☐ B ☐ C ☐ D

81) Which of the following species are 3,5 (meta) directing groups when second group is introduced into the benzene ring?

I = $-\text{NH}_2$

II = $-\text{CHO}$

III = $-\text{COOH}$

IV = $-\text{CH}_3$

A) II, III and IV

C) I and IV

B) II and III

D) I, II and IV

☐ A ☐ B ☐ C ☐ D

82) Which of the following tests does not help us to distinguish between alkane (ethane) and alkene (ethene)?

- A) Baeyer's test
B) Ammonical cuprous chloride test
C) $\text{Br}_2 / \text{CCl}_4$ test
D) $\text{Cl}_2 / \text{CCl}_4$ test

☐ A ☐ B ☐ C ☐ D

83) Which of the following statements is incorrect about ethene which shows trigonal planar structure?

- A) It has 5 sigma bonds and 1 pi bond
B) It has two sp^2 -hybridized carbon atoms
C) It has 3 sigma bonds and 2 pi bonds
D) It has unhybridized p orbitals on carbon atoms

☐ A ☐ B ☐ C ☐ D

84) X-ray studies of benzene shows that it is cyclic hexagonal planar structure. Mark the incorrect statement about benzene:

- A) It has 120° bond angle
B) It has C – H bond length $1.09\text{\AA}$
C) It has C – C bond length $1.397\text{\AA}$
D) C – C bond length are unequal

☐ A ☐ B ☐ C ☐ D

85) Ethanol and dimethyl ether are best considered:

- A) Structural isomers
B) Stereoisomers
C) Enantiomers
D) Diaasteromers

☐ A ☐ B ☐ C ☐ D

PREVIOUS

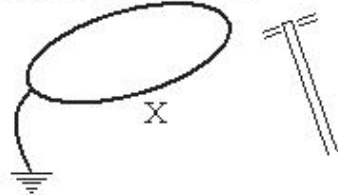
FINISH TEST

NEXT

< TEST

Biology Chemistry **Physics** English

- 86) A negatively charged rod is held near a capacitor plate X that is earthed. X is:



- A) Uncharged and at a negative potential
- B) Positively charged and at Earth potential
- C) Uncharged and at a positive potential
- D) Negatively charged and at earth potential

☐ A ☐ B ☐ C ☐ D

- 87) The capacitor stores charge on its plates by:

- A) Electrostatic Induction
- B) Electromagnetic Induction
- C) Electromotive Induction
- D) Electromagnetism

☐ A ☐ B ☐ C ☐ D

- 88) A capacitor which has a capacitance of $100\ \mu\text{F}$ will:

- A) Be fully charged in 1 second by a current of $1\ \mu\text{A}$
- B) Store $0.1\ \text{mC}$ of charge at a potential difference of 1 volt
- C) Gain 1 joule of energy when 1 coulomb of charge is stored on it
- D) Discharge in 1 second when connected across a resistor of resistance 1 ohm

☐ A ☐ B ☐ C ☐ D

- 89) The capacity of a parallel plate capacitor is $2\ \mu\text{F}$. When a glass plate is placed between the plates of the condenser, its potential difference reduces to $\frac{1}{3}$ of the original value. The value of dielectric constant of glass is:

- A) 1.5
- B) 3
- C) 6
- D) 12

☐ A ☐ B ☐ C ☐ D

- 90) The capacity of a parallel plate capacitor is $5\ \mu\text{F}$ when the distance between the plates is 2.5 cm. If the distance between the plates is increased to 7.5 cm, then the capacitance becomes:

- A) $5\ \mu\text{F}$
- B) $1.5\ \mu\text{F}$
- C) $\frac{5}{3}\ \mu\text{F}$
- D) $\frac{5}{9}\ \mu\text{F}$

B) $\frac{5}{3} \mu\text{F}$

D) $15 \mu\text{F}$

- ☐ A ☐ B ☐ C ☐ D

- 91) The potentials of the two plates of capacitor are $+7.5 \text{ V}$ and -7.5 V . The charge on one of the plates is $15 \mu\text{C}$. The capacitance of the capacitor is:

- A) $1 \mu\text{F}$ C) $2 \mu\text{F}$
B) $0.5 \mu\text{F}$ D) $4 \mu\text{F}$

- ☐ A ☐ B ☐ C ☐ D

- 92) A dielectric is inserted between the plates of an isolated charge capacitor. Which of the following is not true about that capacitor?

- A) Its energy stored decreases
B) Its potential difference decreases
C) Its charge stored decreases
D) Its potential gradient decreases

- ☐ A ☐ B ☐ C ☐ D

- 93) A $6 \mu\text{F}$ capacitor is charged to 300 V and then its plates are connected by a wire. How much heat will be produced?

- A) 0.27 J C) 0.81 J
B) 0.54 J D) 1.08 J

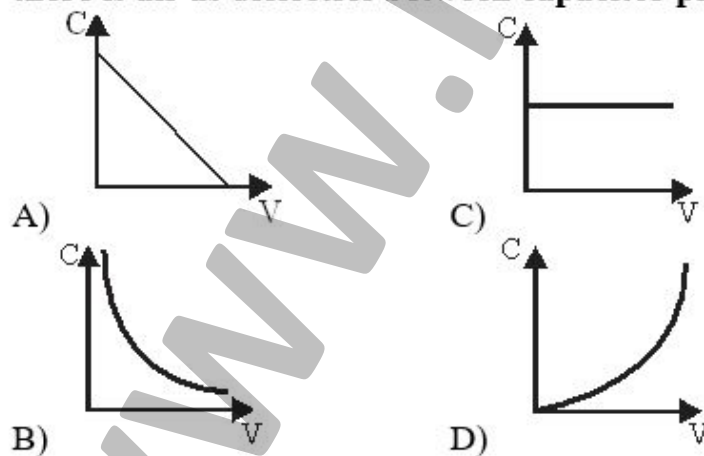
- ☐ A ☐ B ☐ C ☐ D

- 94) A capacitor is charged to store an energy U . The charging battery is now disconnected. An identical capacitor is now connected to the first capacitor in parallel. The energy stored by combination is:

- A) $\frac{U}{4}$ C) U
B) $\frac{U}{2}$ D) $\frac{3U}{2}$

- ☐ A ☐ B ☐ C ☐ D

- 95) In the relation $Q=CV$, which graph correctly describes the relation between " C " and " V " when there is air as dielectric between capacitor plates.



- ☐ A ☐ B ☐ C ☐ D

- 96) When a capacitor is connected to a battery:

- A) At start current is maximum
B) No current flows at all
C) A current flows for some time and finally it decreases to zero
D) Both A and C

- ☐ A ☐ B ☐ C ☐ D

A charged capacitor stores 20 C at 5 V . Its stored

- 97) energy is:
A) 25 J
B) 50 J
C) 75 J
D) 100 J
- ☐ A ☐ B ☐ C ☐ D
- 98) In the presence of dielectric material, the electric field between plates of the capacitor will be:
A) Zero
B) Remain same
C) Decreased
D) Increased
- ☐ A ☐ B ☐ C ☐ D
- 99) A capacitor is approximately fully charged after:
A) Two times constant
B) Three times constant
C) Four times constant
D) Five times constant
- ☐ A ☐ B ☐ C ☐ D
- 100) A device that can store charge is called:
A) Inductor
B) Resistor
C) Diode
D) Capacitor
- ☐ A ☐ B ☐ C ☐ D
- 101) The ratio of one micro-farad to one pico-farad is equal to:
A) 10^6 F
B) 10^{-6} F
C) 10^{-6}
D) 10^6
- ☐ A ☐ B ☐ C ☐ D
- 102) Electric field between plates of a charged parallel plate capacitor is:
A) Zero
B) Non-Uniform
C) Infinite
D) Uniform
- ☐ A ☐ B ☐ C ☐ D
- 103) If a 20 F capacitor is to have an energy content of 40 J, it must be placed across a potential difference of:
A) 2 V
B) 1 V
C) 8 V
D) 4 V
- ☐ A ☐ B ☐ C ☐ D
- 104) The capacitor charges or discharges ____ with time:
A) Linearly
B) Exponentially
C) Sinusoidally
D) Any of these
- ☐ A ☐ B ☐ C ☐ D
- 105) If the time constant of an RC-circuit is small, capacitor charges:
A) Linearly with time
B) Rapidly
C) Slowly
D) None of these
- ☐ A ☐ B ☐ C ☐ D
- 106) The ratio of instantaneous charge and maximum charge on plates of capacitor at $t = RC$ is (during charging):
A) 36.8%
B) 63.2%
C) 92.5%
D) 87.3%
- ☐ A ☐ B ☐ C ☐ D
- 107) Which of the following is equal to farad?
A) $\Omega \text{ s}$
B) $\Omega^{-1} \text{ s}$
C) $\Omega^{-1} \text{ s}$
D) $\Omega^{-1} \text{ s}$

- ☐ A ☐ B ☐ C ☐ D
- 108) Capacitance of parallel plates capacitor is independent of:**
 A) Area of plates of capacitor
 B) Medium between plates of capacitor
 C) Potential difference between plates of capacitor
 D) Separation between the plates
☐ A ☐ B ☐ C ☐ D
- 109) When the charge on plates of capacitors is quadrupled, then the potential difference between the plates is:**
 A) Halved C) Doubled
 B) Quadrupled D) Same as initially
☐ A ☐ B ☐ C ☐ D
- 110) The capacitance of parallel plate capacitor is C. If the area of the plates is doubled and dielectric medium of relative permittivity 1.5 is introduced between plates then the capacitance of capacitor is:**
 A) Increases by 300% C) Increases by 200%
 B) Decreases by 300% D) Decreases by 200%
☐ A ☐ B ☐ C ☐ D
- 111) The ratio of C_{vac} to C_{med} is equal to:**
 A) ϵ_r C) $\frac{1}{\epsilon}$
 B) $\frac{1}{\epsilon_r}$ D) $\frac{1}{\epsilon_0}$
☐ A ☐ B ☐ C ☐ D
- 112) The energy stored per unit volume between plates of capacitor is:**
 A) $\frac{1}{2} \epsilon_r \epsilon_0 E^2$ C) $\frac{1}{2} QV$
 B) $\frac{1}{2} \epsilon_r \epsilon_0 E^2 Ad$ D) $\frac{1}{2} CV^2$
☐ A ☐ B ☐ C ☐ D
- 113) During the discharging of a capacitor at $t=RC$, the remaining charge on the plate of the capacitor is:**
 A) 63% of the total C) 100%
 B) 37% of the total D) 87% of the total
☐ A ☐ B ☐ C ☐ D
- 114) The capacitance of a parallel plate capacitor is $12 \mu F$. If the distance between the plates is made half and area is doubled, the capacitance of the capacitor will become:**
 A) $6 \mu F$ C) $24 \mu F$
 B) $12 \mu F$ D) $48 \mu F$
☐ A ☐ B ☐ C ☐ D

115) A parallel plate capacitor has a capacitance $50\ \mu\text{F}$ in air and $100\ \mu\text{F}$ in the oil. The dielectric constant of oil is:

A) 0.45

B) 0.55

C) 2

D) 0.5

☐ A

☐ B

☐ C

☐ D

PREVIOUS

FINISH TEST

NEXT



STUDY

AN EXAMINATION BY
WWW.MDCA1STUDY.COM



SOCIAL



CONTACT
US

123-C, E1 Hali Road, Gulberg III, Lahore.

Tel: 042-35870192

 0800-78608

 info@pgc.edu

Powered by Tower Technologies

< TEST

Biology Chemistry Physics **English**

116) Directions: Fill in the blank with appropriate option.

Since Jamshaid could not find a map of the gigantic mall, he felt as though he was in a never-ending _____.

- A) Palpitation C) Impulse
B) Labyrinth D) Discrepancies

☐ A ☐ B ☐ C ☐ D

117) "You must open the _____," the repairman told his apprentice, "so the smoke will be able escape to the outside."

- A) Floe C) Flu
B) Flew D) Flue

☐ A ☐ B ☐ C ☐ D

118) When the baseball crashed through the _____, the father explained to his son how important it is to hit the ball away from the house.

- A) Pan C) Pane
B) Pain D) Pine

☐ A ☐ B ☐ C ☐ D

119) She was feeling _____ after five hours of surgery.

- A) Groggy C) Pally
B) Haggard D) Grope

☐ A ☐ B ☐ C ☐ D

120) That is just an example of what I complain _____.

- A) With C) Off
B) To D) Of

☐ A ☐ B ☐ C ☐ D

121) The parents were stunned when they saw that children had created _____ in the bedroom.

- A) Knack C) Dank
B) Groggy D) Mayhem

☐ A ☐ B ☐ C ☐ D

- 122) As I walked through the street festival, the smells of the ethnic foods began to _____ through my nostrils.
A) Haft C) Waft
B) Abaft D) Raft
- ☐ A ☐ B ☐ C ☐ D
- 123) They sometimes feel a _____ for the mountains and the sea.
A) Yearning C) Yelling
B) Yapping D) Yielding
- ☐ A ☐ B ☐ C ☐ D
- 124) It is much easier to mend an article of clothing if it is ripped at the _____ due to the two pieces of cloth coming together.
A) Sim C) Seam
B) Same D) Seem
- ☐ A ☐ B ☐ C ☐ D
- 125) The patient began to hemorrhage when the surgeon nicked a _____ during surgery.
A) Vein C) Wan
B) Vain D) Wane
- ☐ A ☐ B ☐ C ☐ D
- 126) He was a good athlete when he came by his wild idea _____ about the age of sixteen.
A) In C) At
B) On D) For
- ☐ A ☐ B ☐ C ☐ D
- 127) Maybe we can _____ the car damage by repainting the scratched area.
A) Exaggerate C) Stipulate
B) Disguise D) Divulge
- ☐ A ☐ B ☐ C ☐ D
- 128) With the last _____ in place, the mummy's body was fully wrapped and ready to be placed in the sarcophagus.
A) Shirk C) Swathe
B) Quirk D) Snub
- ☐ A ☐ B ☐ C ☐ D
- 129) The volcano inflicted _____ upon the tiny village.
A) Stoicism C) Havoc
B) Sagacity D) Vendetta
- ☐ A ☐ B ☐ C ☐ D
- 130) Many companies use a _____ to determine how satisfied their customers are with their service.
A) Pal C) Pole
B) Pool D) Poll
- ☐ A ☐ B ☐ C ☐ D
- 131) Directions: Choose the correct spelling:
- A) Terible C) Terrible
B) Terribel D) Teriyble

☐ A ☐ B ☐ C ☐ D

- 132) A) Bambozle C) Bamboozel
B) Bambeozle D) Bamboozle

☐ A ☐ B ☐ C ☐ D

- 133) A) Dispassionate C) Dispassionat
B) Dispasionate D) Dispassoinate

☐ A ☐ B ☐ C ☐ D

- 134) A) Asspiration C) Aspiration
B) Aspairation D) Aspiretion

☐ A ☐ B ☐ C ☐ D

- 135) A) Comperable C) Camparable
B) Comparabe D) Comeparable

☐ A ☐ B ☐ C ☐ D

PREVIOUS

FINISH TEST